

EXHIBIT AA

President's Working Group on Financial Markets et al., *Report on Stablecoins*, November 2021.

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President's Working Group on Financial Markets,
the Federal Deposit Insurance Corporation,
and the Office of the Comptroller of the Currency

Report on STABLECOINS

November 2021

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INTERAGENCY REPORT ON STABLECOINS

Executive Summary

Stablecoins are digital assets that are designed to maintain a stable value relative to a national currency or other reference assets. Today, stablecoins are primarily used in the United States to facilitate trading, lending, or borrowing of other digital assets, predominantly on or through digital asset trading platforms. Proponents believe stablecoins could become widely used by households and businesses as a means of payment. If well-designed and appropriately regulated, stablecoins could support faster, more efficient, and more inclusive payments options. Moreover, the transition to broader use of stablecoins as a means of payment could occur rapidly due to network effects or relationships between stablecoins and existing user bases or platforms.

Stablecoins and stablecoin-related activities present a variety of risks. Speculative digital asset trading,¹ which may involve the use of stablecoins to move easily between digital asset platforms or in decentralized finance (DeFi) arrangements, presents risks related to market integrity and investor protection. These market integrity and investor protection risks encompass possible fraud and misconduct in digital asset trading, including market manipulation, insider trading, and front running, as well as a lack of trading or price transparency. Where these activities involve complex relationships or significant amounts of leverage, there may also be risks to the broader financial system. In addition, digital asset trading platforms and other market participants play a key role in providing access to stablecoins and liquidity in the market for stablecoins. To the extent activity related to digital assets falls under the jurisdiction of the Securities and Exchange Commission (SEC) and Commodity Futures Trading Commission (CFTC), the SEC and CFTC have broad enforcement, rulemaking, and oversight authorities that may address certain of these concerns (*for more detail, see [Digital Asset Trading Platforms and DeFi](#)*).

Stablecoins also pose illicit finance concerns and risks to financial integrity, including concerns related to compliance with rules governing anti-money laundering (AML) and countering the financing of terrorism (CFT) and proliferation. To prevent misuse of stablecoins and other digital assets by illicit actors, Treasury will continue leading efforts at the Financial Action Task Force (FATF) to encourage countries to implement international AML/CFT standards and pursue additional resources to support supervision of domestic AML/CFT regulations. Illicit finance concerns, and recommendations to mitigate illicit finance risks, are discussed in more detail in *[Illicit Finance Risk](#)*.

In addition to market integrity, investor protection, and illicit finance concerns, the potential for the increased use of stablecoins as a means of payment raises a range of prudential concerns. If stablecoin issuers do not honor a request to redeem a stablecoin, or if users lose confidence in a stablecoin issuer's ability to honor such a request, runs on the arrangement could occur that may result in harm to users and the broader financial system. Further, to the extent stablecoins are widely used to facilitate payments, disruptions to the payment chain that allows stablecoins to be transferred among users could lead to a loss of payments efficiency and safety and undermine the functioning of the

¹ In general, references in this document to "digital asset trading" include trading, lending, or borrowing transactions that involve digital assets.

broader economy. The potential for stablecoin arrangements to scale rapidly raises additional issues related to systemic risk and concentration of economic power.

There are key gaps in prudential authority over stablecoins used for payments purposes. This report focuses on analyzing prudential risks posed by stablecoins used as a means of payment and provides recommendations for addressing these gaps.² These prudential recommendations apply to “payment stablecoins,” defined as those stablecoins that are designed to maintain a stable value relative to a fiat currency and, therefore, have the potential to be used as a widespread means of payment. These stablecoins are often, although not always, characterized by a promise or expectation that the stablecoin can be redeemed on a one-to-one basis for fiat currency.

To address the prudential risks of payment stablecoins, the President’s Working Group on Financial Markets (PWG),³ along with the Federal Deposit Insurance Corporation (FDIC) and the Office of the Comptroller of the Currency (OCC) (together, the agencies) recommend that **Congress act promptly to enact legislation to ensure that payment stablecoins and payment stablecoin arrangements are subject to a federal prudential framework on a consistent and comprehensive basis.** Because payment stablecoins are an emerging and rapidly developing type of financial instrument, legislation should provide regulators flexibility to respond to future developments and adequately address risks across a variety of organizational structures. Such legislation would complement existing authorities with respect to market integrity, investor protection and illicit finance, and would address key prudential concerns:

- **To address risks to stablecoin users and guard against stablecoin runs,** legislation should require stablecoin issuers to be insured depository institutions, which are subject to appropriate supervision and regulation, at the depository institution and the holding company level.
- **To address concerns about payment system risk,** in addition to the requirements for stablecoin issuers, legislation should require custodial wallet providers⁴ to be subject to appropriate federal oversight. Congress should also provide the federal supervisor of a stablecoin issuer with the authority to require any entity that performs activities that are critical to the functioning of the stablecoin arrangement to meet appropriate risk-management standards.

2 Stablecoins are being used for trading, lending, borrowing, and, in the future, may also be widely used by households and businesses as a means of payment. This report does not provide recommendations regarding issues or risks under the federal securities laws or the Commodity Exchange Act (CEA) as they pertain to any digital assets, digital asset trading platforms, DeFi, stablecoins or stablecoin arrangements, and the prudential framework recommendations are not intended to affect any analysis under the federal securities laws or the CEA.

3 Executive Order 12631 of March 18, 1988 (Working Group on Financial Markets) established the President’s Working Group on Financial Markets, which is chaired by the Secretary of the Treasury, or their designee, and includes the Chair of the Board of Governors of the Federal Reserve System, the Chair of the Securities and Exchange Commission, and the Chair of the Commodity Futures Trading Commission, or their designees. The OCC and the FDIC also joined in this report.

4 Digital “wallets” provide a variety of services to users, including facilitating the transfer of stablecoins between users. A “custodial wallet provider” is a wallet provider that users may rely on to hold stablecoins on their behalf.

- **To address additional concerns about systemic risk and concentration of economic power,** legislation should require stablecoin issuers to comply with activities restrictions that limit affiliation with commercial entities. Supervisors should have authority to implement standards to promote interoperability among stablecoins. In addition, Congress may wish to consider other standards for custodial wallet providers, such as limits on affiliation with commercial entities or on use of users' transaction data.

In the immediate term, the agencies are committed to taking action to address risks falling within each agency's jurisdiction, including efforts to ensure that stablecoins and related activity comply with existing legal obligations, as well as continued coordination and collaboration on issues of common interest.

In addition, in the absence of Congressional action, which is urgently needed to address the prudential risks inherent in payment stablecoins, the agencies recommend that the Financial Stability Oversight Council (Council) consider steps available to it to address the risks outlined in this report. Such steps may include designation of certain activities conducted within a stablecoin arrangement as, or as likely to become, systemically important payment, clearing, and settlement activities.

The rapid growth of stablecoins increases the urgency of this work. Failure to act risks growth of payment stablecoins without adequate protection for users, the financial system, and the broader economy. In contrast, a regulatory framework that supports confidence in payment stablecoins, in normal times and in periods of stress, could increase the likelihood of stablecoins supporting beneficial payments options. The recommendations in this report build on the work of international forums, including the Financial Stability Board, on stablecoin arrangements. See *International Standards* for more detail.

While the scope of this report is limited to stablecoins, work on digital assets and other innovations related to cryptographic and distributed ledger technology is ongoing throughout the Administration. The Administration and the financial regulatory agencies will continue to collaborate closely on ways to foster responsible financial innovation, promote consistent regulatory approaches, and identify and address potential risks that arise from such innovation.

The remainder of this report is organized as follows: *Part I* provides background on stablecoins, focusing on the mechanisms that support the creation and redemption of stablecoins, the transfer and storage of stablecoins, and the activities and participants necessary to support a stablecoin arrangement; *Part II* of the report describes key prudential risks, and prudential regulatory gaps, attendant to the use of stablecoins as a means of payment; and *Part III* describes the agencies' recommendations for addressing prudential risks.

I. Background

Creation and Redemption of the Stablecoin

Stablecoins are generally created, or “minted,” in exchange for fiat currency that an issuer receives from a user or third-party. To maintain a stable value relative to fiat currency, many stablecoins offer a promise or expectation that the coin can be redeemed at par upon request. These stablecoins are often advertised as being supported or backed by a variety of “reserve assets.”⁵ However, there are no standards regarding the composition of stablecoin reserve assets, and the information made publicly available regarding the issuer’s reserve assets is not consistent across stablecoin arrangements as to either its content or the frequency of its release. Based on information available, stablecoins differ in the riskiness of their reserve assets, with some stablecoin arrangements reportedly holding virtually all reserve assets in deposits at insured depository institutions⁶ or in U.S. Treasury bills, and others reportedly holding riskier reserve assets, including commercial paper, corporate and municipal bonds, and other digital assets.

Stablecoin redemption rights can also vary considerably, in terms of both who may present a stablecoin to an issuer for redemption and whether there are any limits on the quantity of coins that may be redeemed.⁷ Some issuers are permitted under the terms of the arrangement to postpone redemption payments for seven days, or even to suspend redemptions at any time, giving rise to considerable uncertainty about the timing of redemptions. As a further point of variation, stablecoins also differ in the nature of the claim provided to the user, with some providing a claim on the issuer and others providing no direct redemption rights to users.⁸ Moreover, users’ ability to redeem their stablecoin may be affected by other aspects of the stablecoin arrangement, including the ability to transfer the proceeds of any redemption into the banking system.

By comparison, a demand deposit held at an insured depository institution is a claim on the issuing bank that provides the depositor with the right to receive U.S. dollars upon request. The value of this claim is insured up to certain amounts and entitled to depositor preference in resolution. In addition, the issuing institution may access emergency liquidity, and is subject on an ongoing basis to supervision and regulation designed to limit the riskiness of the issuer’s balance sheet and operations.

⁵ Stablecoins that are purportedly convertible for an underlying fiat currency are distinct from a smaller subset of stablecoin arrangements that use other means to attempt to stabilize the price of the instrument (sometimes referred to as “synthetic” or “algorithmic” stablecoins) or are convertible for other assets. Because of their more widespread adoption, this discussion focuses on stablecoins that are convertible for fiat currency.

⁶ In some stablecoin arrangements, reserve assets include deposits at insured depository institutions; however, this feature does not mean that deposit insurance extends to the stablecoin user. If the stablecoin issuer deposits fiat currency reserves at an FDIC-insured bank and does so in a manner that meets all the requirements for “pass-through” deposit insurance coverage, the deposit would generally only be insured to each stablecoin holder individually for up to \$250,000. Without pass-through coverage, the deposit at the bank would be insured only to the stablecoin issuer itself, up to \$250,000. See 12 C.F.R. § 330.5.

⁷ For example, some existing stablecoin issuers purport to place no limitations on the amount of stablecoins a holder (whether an end user or a digital asset platform) may redeem for a fiat currency, while others set minimum redemption amounts that must be met before the issuer will process a redemption request. In some cases, these minimum redemption amounts may be considerably greater than the value of stablecoins held by a typical user.

⁸ In addition, even if the purported value of stablecoins in circulation is equal to the value of the reserve assets, other creditors may have a claim on the reserve assets that competes with that of stablecoin holders.

Transfer and Storage of the Stablecoin

To become useful as a means of payment, a stablecoin also must be readily transferrable with a reliable and accurate mechanism for transferring ownership. Stablecoin arrangements typically facilitate the transfer of coins between or among users of the stablecoin arrangement, by having issuers and other participants record the transfer either “on the books” of the wallet provider (for transactions between users of the same wallet provider⁹) or on the distributed ledger (for transactions involving users of different wallets).¹⁰ In this sense, they can facilitate the transfer of value as in payment systems.¹¹ More specifically, the payment processes underlying both distributed ledger and traditional payment systems share similarities, in that they each rely on the following conceptual steps: (1) initiation of payment, typically through a message to the payment network, (2) validation or verification of the integrity of the message and the conditions for settlement (e.g., sufficient funds), and (3) settlement of the transaction, in which value is transferred and the obligation is discharged.

Many of the stablecoins currently in circulation are underpinned by “public blockchain” networks.¹² Potential benefits and drawbacks inherent with any distributed network technology are present in these types of stablecoin arrangements, such as transparency provided by a public ledger. In particular, the process for public blockchains to come to agreement over updates to the ledger typically involves the node operators communicating and validating transactions and then agreeing to a new version of the ledger (often referred to as consensus).¹³ Compared to a traditional centralized system, certain public blockchain networks are designed to require greater computational resources to achieve consensus, which in turn constrains the network’s capacity for transaction throughput (i.e., maximum number of transactions capable of being processed per second) and may be more expensive and energy intensive than traditional payment systems.¹⁴ In contrast to public blockchains, “permissioned blockchains” do not allow such open and direct access to the distributed ledger.¹⁵ Compared to public blockchains, permissioned blockchains may offer more certainty as to who is responsible for monitoring the network and complying with the rules of the network (e.g., processing only valid transactions) and thus faster and more predictable settlement. Depending on design, however, they may also offer less transparency and security.

9 Transactions recorded on the books of a wallet provider or other holder of digital asset rather than on the distributed ledger are sometimes referred to as “off-chain” transactions.

10 Participants in stablecoin arrangements may be able to process stablecoin transfers internally. For example, a wallet provider could hold stablecoins on behalf of customers and allow its customers to send or receive stablecoins without interacting with the distributed ledger. Stablecoin arrangements may establish rules for how participants should conduct such internal transfers.

11 At various stages of the transfer process, the successful transfer of stablecoins might depend on wallet providers, node operators, and various other intermediaries and technologies.

12 In these types of arrangements, as a general matter, anyone can become a “node operator” responsible for one or both of the following functions: (1) communicating transactions to other participants, or (2) participating in the settlement and processing stablecoin transactions. In a public blockchain network, by design, no prior approval is needed for parties to participate in these activities; in principle, the arrangement’s integrity is guaranteed by the underlying consensus mechanism (e.g., proof-of-work or proof-of-stake).

13 See “Payment System Risks,” in **Part II** below, for more information on consensus-based settlement mechanisms.

14 While these issues are not the focus of this report, Treasury and the Council are actively engaged in addressing climate-related financial risks through a number of different initiatives. See e.g., FINANCIAL STABILITY OVERSIGHT COUNCIL, *Report on Climate-Related Financial Risk*, (October 2021), <https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf>

15 The term “permissioned blockchains” refers to blockchain networks that require participants to obtain permission to access the blockchain, thereby creating a control layer on top of the blockchain to govern the actions performed by the allowed participants.

As a further point of variation among stablecoins, in some stablecoin arrangements, individual users can directly hold and spend the stablecoins they own without relying on a third-party custodian or custodial wallet provider.¹⁶ In these cases, stablecoins are akin to bearer assets that can be transferred in a peer-to-peer fashion among those who maintain an address on the appropriate blockchain network. In contrast, other types of stablecoin arrangements can only be accessed by having an account with a wallet provider. In these arrangements, a limited group of participants are responsible for transferring assets on behalf of account holders.

Unlike most stablecoins, the traditional retail non-cash payments systems—that is, check, automated clearing house (ACH), and credit, debit, or prepaid card transactions—all rely on financial institutions for one or more parts of this process, and each financial institution maintains its own ledger of transactions that is compared to ledgers held at other institutions and intermediaries. Together, these systems process over 600 million transactions per day.¹⁷ In 2018, the number of non-cash payments by consumers and businesses reached 174.2 billion, and the value of these payments totaled \$97.04 trillion.¹⁸ Risk of fraud or instances of error are governed by state and federal laws, and within the boundaries of these laws, transparent rules governing participation in the payment network may provide for allocation of loss more generally with respect to participating financial institutions.¹⁹ For example, such payment network rules govern the order in which transactions are processed and limit customer liability for unauthorized transactions.

Activities and Participants in Stablecoin Arrangements

The key functions performed by a stablecoin arrangement—as described above, (1) creation and redemption of the stablecoin, (2) its transfer between parties, and (3) storage of the stablecoin by users—typically entail a range of different activities. While there is some variation among stablecoin arrangements, these key functions are generally supported by the following activities:

- **Governance** – Governance functions include defining and ensuring compliance with standards related to the purchasing, redeeming, holding, and transferring of stablecoins.
- **Management of Reserve Assets** – Stablecoin arrangements that are supported by reserve assets typically define the standards for the composition of those assets and purport to ensure a one-to-one ratio between reserve assets and the par value of stablecoins outstanding. Management of the reserve assets involves making investment decisions with respect to the reserve, including with respect to the riskiness of the assets.
- **Custody of Reserve Assets** – Stablecoins that are supported by reserve assets typically require a custodian or trust to acquire and hold the assets and execute transactions to facilitate management of reserve assets, in adherence with standards for reserve assets described above.

¹⁶ Despite this capability, many users voluntarily rely on such custodians.

¹⁷ See Mills, David et al., *Distributed ledger technology in payments, clearing, and settlement*, (BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, Finance and Economics Discussion Series 2016-095, December 2016), <https://doi.org/10.17016/FEDS.2016.095>

¹⁸ This amount includes prepaid and non-prepaid debit cards, credit cards, ACH credit and debit transfers, and checks, which comprise a set of noncash payment types commonly used today by consumers and businesses in the United States. See BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *2019 Federal Reserve Payments Study*, (December 2019), <https://www.federalreserve.gov/newsevents/pressreleases/files/2019-payments-study-20191219.pdf>

¹⁹ See, e.g., U.C.C. Article 4, 12 C.F.R. § 1005 (Reg. E), 12 C.F.R. § 226 (Reg. Z), National Automated Clearing House Association (NACHA) Operating Rules.

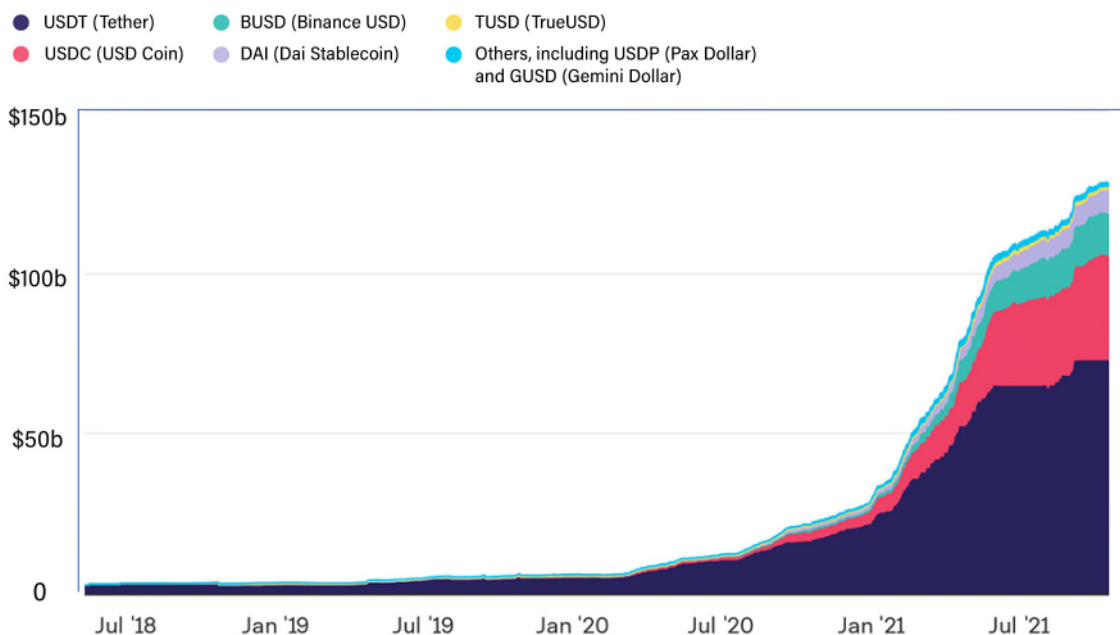
- **Settlement** – Transfers of digital assets such as stablecoins on a distributed ledger require other parties to process stablecoin transactions (e.g., to engage in authentication and validation) and, for on-chain transactions, to update the ledger in accordance with the underlying protocol.
- **Distribution** – Distribution of the stablecoin to users, such as consumers and businesses, involves providing access channels and other services that allow users to obtain, hold, and transact in the stablecoin.

These activities may be conducted by one or more parties and may be highly distributed and complex. For example, one party (or set of parties) may be responsible for aspects of governance, another for the minting and burning of coins, another for distributed ledger operation, validation, or settlement, another for reserve management, and others for interfacing with users of the coin. While many of these activities are generally carried out by a stablecoin issuer and its agents, others may be performed by third parties. For example, with respect to distribution, stablecoin users may choose to rely on wallet providers or exchanges to facilitate their stablecoin holding and trading activities, such as communicating stablecoin transactions to the distributed ledger. In particular, users may choose to rely on custodial wallet providers to hold and facilitate the transfer of stablecoins on their behalf. Depending on the arrangement and its terms, users of a payment stablecoin may have only limited rights, if any, that they can assert against the stablecoin issuer; their recourse could be limited to their custodial wallet provider.

Use of Stablecoins

The market capitalization of stablecoins issued by the largest stablecoin issuers exceeded \$127 billion as of October 2021. This amount reflects a nearly 500 percent increase over the preceding twelve months.²⁰ The current market largely consists of a few large U.S. dollar-pegged stablecoins.

Chart 1: Top Stablecoins by Market Capitalization (in billions)



Source: Coin Metrics, The Block
Updated: October 21, 2021

²⁰ Stablecoin supply grew from \$21.5 billion on October 19, 2020 to \$127.9 billion as of October 18, 2021, representing an increase of approximately 495 percent. See *Total Stablecoin Supply*, THE BLOCK, (October 18, 2021), <https://www.theblockcrypto.com/data/decentralized-finance/stablecoins/total-stablecoin-supply-daily>

At the time of publication of this report, stablecoins are predominantly used in the United States to facilitate trading, lending, and borrowing of other digital assets. For example, stablecoins allow market participants to engage in speculative digital asset trading and to move easily between digital asset platforms and applications, reducing the need for fiat currencies and traditional financial institutions. Stablecoins also allow users to store and transfer value associated with digital asset trading, lending, and borrowing within the distributed ledger environment, also reducing the need for fiat currencies and traditional financial institutions. Currently, digital asset trading platforms and other intermediaries also play a key role in providing access to and enabling trading of stablecoins, as well as in the stabilization mechanisms of stablecoin arrangements. *See Digital Asset Trading Platforms and DeFi.*

Beyond digital asset trading, several existing stablecoin issuers and entities with stablecoin projects under development have the stated ambition for the stablecoins they create to be used widely by retail users to pay for goods and services, by corporations in the context of supply chain payments, and in the context of international remittances. The extent to which stablecoins will be used for these purposes is difficult to predict and is likely to depend on the convenience of service options, the competitiveness of stablecoin transaction costs, and users' confidence in the stablecoin issuer, including confidence in the issuer's ability to maintain a stable value and facilitate redemption. However, the transition to more widespread use could occur quickly – for example, due to network effects or the ability of stablecoins to expand through relationships with existing user bases or platforms.

Digital Asset Trading Platforms and DeFi

This section focuses on the activities and related risks of digital asset trading platforms and DeFi, and on the interactions between stablecoins and digital asset trading platforms and DeFi. Digital asset trading platforms and DeFi depend on stablecoins to facilitate borrowing, lending, and trading. At the same time, digital asset trading platforms and DeFi also play an important role in the current functioning of stablecoins. Digital asset trading platforms and DeFi also raise broader questions about digital asset market regulation, supervision, and enforcement. These questions are under active consideration by the CFTC and SEC but are not the subject of the recommendations in this report.

Background

Stablecoins facilitate a large and growing volume of digital asset trading by allowing market participants to quickly convert volatile digital assets into a digital asset with more perceived stability, and vice versa; providing a digital asset with more perceived stability to transfer across platforms without the use of national currencies and reducing the need for traditional financial institutions; and serving as a source of collateral against which market participants can borrow to fund additional activity, sometimes using extremely high leverage. Market participants also use stablecoins to earn yield by transferring stablecoins into digital asset trading platforms, or by using stablecoins to serve as collateral for loans and margined transactions, in exchange for interest or returns. As evidence of the importance of stablecoins to the digital asset market, stablecoins are reportedly among the most highly traded assets as a percentage of total volume on several large venues that enable the trading of digital assets.

Stablecoins issued by a private entity and used for trading, lending, or borrowing purposes have unique risks associated with secondary market activity and market participants beyond the stablecoin issuer itself. Stablecoin arrangements generally require a mechanism for distribution to end users and a mechanism for repurchase or conversion of the stablecoins into national currency. These activities are often undertaken by market participants other than the stablecoin issuer. For example, rather than mint or redeem stablecoins through the issuer, most market participants rely on digital asset trading platforms to exchange stablecoins with national currencies (or even other stablecoins).

Key to some national currency-based stablecoin arrangements are the arbitrage activities of market participants. The active trading of stablecoins between parties is part of the essential stabilization mechanism to keep the price of the stablecoin close to or at the pegged value.

Digital asset trading platforms typically hold stablecoins for their customers in non-segregated omnibus custodial wallets and reflect trades on internal records (off-chain). These platforms and their affiliates can also have significant holdings of stablecoins, which may be co-mingled with their customers' stablecoins. The platform or its affiliates may also engage in active trading, on a principal basis, of the stablecoins that they distribute and as market makers, without any disclosure or oversight of, or constraint on, these proprietary trading activities.

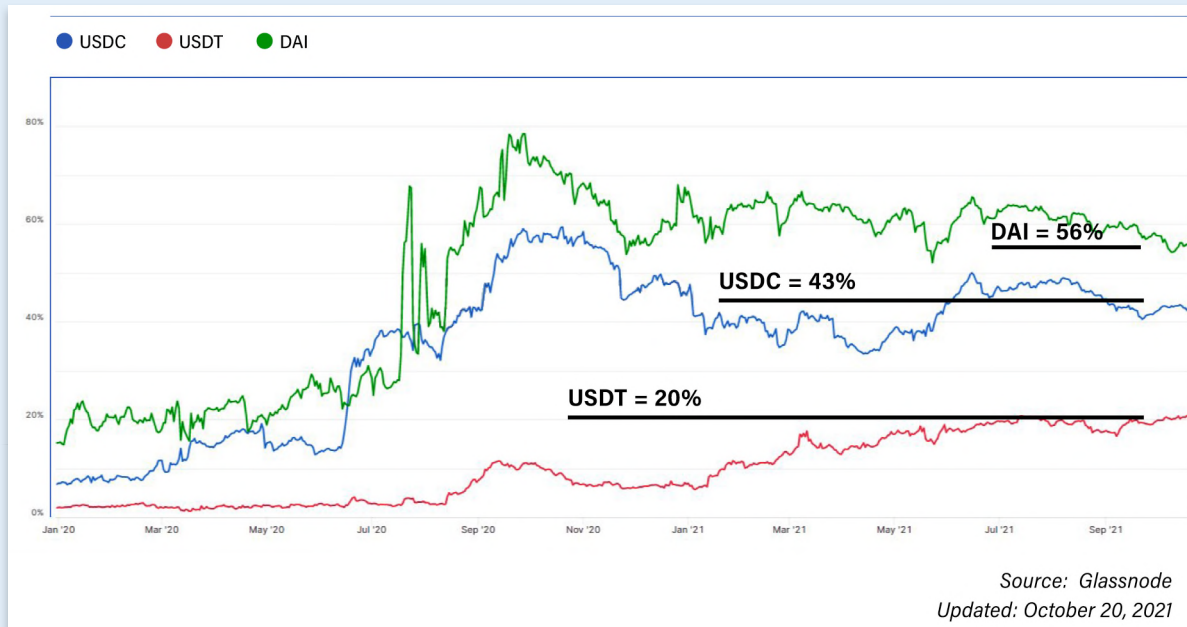
DeFi

Stablecoins also play a central role in facilitating trading, lending, and borrowing activity in DeFi. “DeFi” broadly refers to a variety of financial products, services, activities, and arrangements supported by smart contract-enabled distributed ledger technology. This technology can reduce the use of traditional financial intermediaries and centralized institutions to perform certain functions, although the degree of decentralization across DeFi differs widely. In some cases, despite claims of decentralization, operations and activities within DeFi are highly concentrated in and, governed or administered by, a small group of developers and/or investors. Despite some asserted distinctions from more traditional or centralized financial products, services, and activities, DeFi arrangements often offer the same or similar products, services, and activities, and raise similar investor and consumer protection, market integrity, and policy concerns.

Stablecoins are central to the functioning of DeFi, as they are often used in DeFi arrangements to facilitate trading or as collateral for lending and borrowing. For example, stablecoins often are one asset in a pair of digital assets used in a so-called “automated market maker” or “AMM” arrangements. The AMM is a mechanism designed to create liquidity for others seeking to effectuate trades. As another example, stablecoins are frequently “locked” in DeFi arrangements to garner yield from interest payments paid by others borrowing those stablecoins from the arrangement for leveraged trading or other activities.

Industry measures for the size of DeFi participation, although unverified, include the percentage of stablecoins that are “locked” in Ethereum smart contracts. Ethereum currently is the predominant blockchain on which DeFi protocols and applications function. The chart below includes the type of national-currency referenced stablecoins discussed in this report (USDC and USDT), as well as an algorithmic stablecoin (DAI).

Chart 2: Percentage of Stablecoin Supplies Locked in Ethereum Smart Contracts



Risks

Digital asset trading platforms and DeFi arrangements present risks of particular focus to the agencies, and most notably to the SEC and CFTC. Among others, these risks include:

- Risks of fraud, misappropriation, and conflicts of interest, including those arising from misleading disclosures to the market, misuse of inside information, and manipulative trading activities;
- Reliance of stablecoin arrangements on digital asset trading platforms (e.g., for distribution, to enable customers to convert stablecoins into national currency, and to facilitate arbitrage mechanisms), such that a failure or disruption to the digital asset trading platform could threaten the stablecoin;
- Reliance of digital asset trading platforms on stablecoins (e.g., to facilitate transactions occurring on the platform, or as a means of storing platform reserves), such that a failure or disruption of the stablecoin could threaten the digital asset trading platform;
- Money laundering and terrorist financing risks;
- Excessive leverage facilitated by use of stablecoins as collateral on unregulated or non-compliant trading platforms;
- Risks as a result of digital asset trading platforms' non-compliance with applicable regulations;
- Interlinkages between digital asset trading platforms and stablecoins, including in platforms' ownership of stablecoins (and potential co-mingling with customer funds);
- Information asymmetries and market abuse as a result of inaccurate, limited or non-standard trade and price reporting from certain platforms related to stablecoin and other digital asset transactions that could adversely affect users of the stablecoin and the trading platforms;

- Market integrity risks as a result of manipulative or deceptive trading activity on unsupervised trading venues;
- Risks resulting from unique aspects of distributed ledger-based arrangements, including governance issues, interoperability, scalability, protocol and smart contract vulnerabilities, cybersecurity, and other operational issues; and,
- Risks resulting from novel custody and settlement processes that lack standardization and quality control.

SEC and CFTC Regulatory Authority

In addition to existing AML/CFT regulations, stablecoin arrangements and activities may implicate the jurisdiction of the SEC and/or CFTC. As an initial matter, and depending on their structure, stablecoins, or certain parts of stablecoin arrangements, may be securities, commodities, and/or derivatives. Moreover, much of the trading, lending, and borrowing activity currently fueled by stablecoins on digital asset trading platforms and within DeFi similarly may constitute securities and/or derivatives transactions that must be conducted in compliance with federal securities laws and the CEA, including applicable regulations. To the extent that a given stablecoin activity falls within the jurisdiction of the SEC and/or CFTC, it must be conducted in compliance with applicable provisions of the federal securities laws and/or the CEA.

For digital assets, including stablecoins, that are securities within the SEC's jurisdiction, the federal securities laws cover, for example, digital asset offers, sales, and promotions; investment company activities where the stablecoin issuer or platforms holding stablecoins are engaging in the business of investing in securities and meet the definition of "investment company;" investment adviser activities where entities provide advice on securities (such as in connection with the investment of stablecoin proceeds); and activities of intermediaries and trading platforms.

For digital assets, including stablecoins, that are, or incorporate, commodity futures, options, and swaps within the CFTC's jurisdiction, the CEA provides the CFTC with regulatory authority over all persons engaged in relevant transactions. For example, the CFTC's regulatory authority covers intermediaries and exchanges offering or engaged in commodity futures, options, and swaps, as well as certain leveraged retail transactions. In addition, the CFTC maintains certain antifraud and anti-manipulation authority over commodity transactions in interstate commerce, which includes digital assets that are commodities as defined by the CEA.

As markets for digital assets and DeFi grow, it is essential to address the significant investor and market risks that could threaten end users and other participants in stablecoin arrangements and secondary market activity. This may be accomplished through promotion of investor and market protection measures, such as requiring clear and complete disclosures and protecting against fraud, manipulation, and other risks. Regulatory oversight of digital asset trading platforms and intermediaries promotes important investor and market protections by providing for, among other things, appropriate rulemaking, examination, supervision, and enforcement authorities. Oversight also provides, among other things, trading and price transparency, and protections against fraud and misconduct, including market manipulation, insider trading, and front running.

II. Risks and Regulatory Gaps

Loss of Value: Risks to Stablecoin Users and Stablecoin Runs

An instrument can serve as a reliable means of payment or store of value only when there is confidence in its value, particularly in periods of stress. For stablecoins, this confidence could arise in part from its redeemability, and the belief that such redeemability is supported by a stabilization mechanism that will function effectively both during normal conditions and during periods of stress. Confidence in a stablecoin may be undermined by factors including: (1) use of reserve assets that could fall in price or become illiquid;²¹ (2) a failure to appropriately safeguard reserve assets; (3) a lack of clarity regarding the redemption rights of stablecoin holders;²² and (4) operational risks related to cybersecurity and the collecting, storing, and safeguarding of data.

Failure of a stablecoin to perform according to expectations would harm users of that stablecoin and could pose systemic risk. The mere prospect of a stablecoin not performing as expected could result in a “run” on that stablecoin – i.e., a self-reinforcing cycle of redemptions and fire sales of reserve assets. Fire sales of reserve assets could disrupt critical funding markets, depending on the type and volume of reserve assets involved. Runs could spread contagiously from one stablecoin to another, or to other types of financial institutions that are believed to have a similar risk profile. Risks to the broader financial system could rapidly increase as well, especially in the absence of prudential standards. The internal dynamics of a stablecoin run, as well as the potential implications of such a run for the financial system and broader economy, would likely depend on the volume and liquidity characteristics of reserve assets sold,²³ as well as on broader economic and financial conditions. Some stablecoin arrangements are already sizable, and many stablecoins are growing. A run occurring under strained market conditions may have the potential to amplify a shock to the economy and the financial system.

Payment System Risks

Stablecoin arrangements’ transfer mechanisms (and potentially other aspects of the arrangements’ activities) between issuance and redemption can provide opportunities for efficient payment processing but also can pose risks to their participants and the broader financial system. Payment stablecoins face many of the same basic risks as traditional payment systems, including credit risk, liquidity risk, operational risk, risks arising from improper or ineffective system governance, and settlement risk.²⁴ When not managed comprehensively, these risks can make payment systems less available and less reliable for users, and they can create financial shocks or operate as a channel through which financial shocks spread.

21 These risks may be amplified by a lack of transparency with respect to the composition of reserve assets, as well as a lack of controls on conflicts of interest between stablecoin issuers and stablecoin holders regarding permissible reserve asset investments.

22 For example, there may be a lack of clarity as to whether stablecoin holders have a direct claim on reserve assets or whether there are creditors with a competing claim on such assets.

23 The financial stability risks of a stablecoin run would be greater in the context of stablecoins backed by potentially volatile and illiquid assets than in the context of stablecoins backed one-for-one by high quality liquid assets.

24 See Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, *Principles for financial market infrastructures*, (BANK FOR INTERNATIONAL SETTLEMENTS, April 2012), at p. 174 (Annex H), <https://www.bis.org/cpmi/publ/d101a.pdf>

These risks have the potential to manifest in novel ways as a result of a stablecoin arrangement's use of different technologies, transaction processes, and governance structures, among other factors. For example, unlike traditional payment systems where risk is managed centrally by the payment system operator, some stablecoin arrangements feature decentralized decision-making and complex operations where no single organization is responsible or accountable for risk management and resilient operation of the entire arrangement.

"Operational risk" is the risk that deficiencies in information systems or internal processes, human errors, management failures, or disruptions from external events will result in the reduction, deterioration, or breakdown of services. Operational issues in a payment system can disrupt the ability of users to make payments, which can in turn disrupt economic activity. If an operational problem results in a payment error or enables fraudulent payments, users could lose their money. Stablecoin arrangements face many of the same types of operational risks as existing payment systems but could have the potential to be more operationally resilient in some respects. However, they can also face novel operational risks related to the validation and confirmation of stablecoin transactions and the management and integrity of the distributed ledger. For example, incentives to validate transactions may not adequately motivate participants to respond to demand for processing transactions, resulting in network congestion. Operational risks may also be more difficult to manage or supervise in a stablecoin arrangement, especially when the supporting infrastructure is beyond the control of any one organization (including the entities involved in the stablecoin arrangement) and there is no clear entity to regulate.

"Settlement risk" is the risk that settlement in a payment system will not take place as expected. Well-designed and well-operated payment systems ensure transactions settle reliably, giving users confidence that their funds settlement is certain and final at a given time. Stablecoin arrangements that do not clearly define the point at which settlement is final in their rules and procedures can pose heightened uncertainty and create credit and liquidity pressures for arrangement participants. For example, many distributed ledger networks are permissionless, requiring no prior approval for new users to participate in network activities. When open network access is combined with consensus-based settlement mechanisms, technical settlement may be subject to uncertainty for longer periods, with no single party accountable for defining or ensuring legal settlement finality, creating questions about the reliability and finality of payments.

In addition, "liquidity risk" can arise in a stablecoin arrangement from misalignment of the settlement timing and processes between stablecoin arrangements and other systems (e.g., if a stablecoin arrangement operates 24/7, but the payment system used for funding stablecoin issuance and returning fiat currency upon stablecoin redemption has regular business hours), causing temporary shortages in the quantity of stablecoins available to make payments.

These risks may remain inadequately addressed for stablecoin arrangements due to the lack of consistent risk-management standards among arrangements, the number of different key parties that may be involved in an arrangement, and the operational complexity of an arrangement.²⁵ Moreover, if many entities are involved in operating the infrastructure where transfers take place, it may be challenging for the supervisor of the issuer to require that the arrangement's rules support effective risk management and governance across the entire arrangement.

²⁵ Wallet providers themselves may, as to certain of their activities, be subject to varying levels of regulation and supervision by the states in which they operate, depending on the services provided and the laws and regulations of each state.

Risks of Scale: Systemic Risk and Concentration of Economic Power

While small in comparison to traditional forms of private and public money, stablecoins have grown rapidly in the last year and may continue to grow rapidly at both an individual and aggregate level. For individual stablecoins, the potential for rapid growth may reflect economies of scale and scope; network effects that cause demand for a specific stablecoin to increase as more firms and consumers use the stablecoin; and first-mover advantages. In some cases, rapid scaling may be supported by access to existing customer bases and further enabled by access to end users' data.

The potential for an individual stablecoin to scale rapidly raises three sets of policy concerns. First, a stablecoin issuer or a key participant in a stablecoin arrangement (e.g., a custodial wallet provider) could pose systemic risk – meaning that the failure or distress of that entity could adversely affect financial stability and the real economy.²⁶ Second, the combination of a stablecoin issuer or wallet provider and a commercial firm could lead to an excessive concentration of economic power. These policy concerns are analogous to those traditionally associated with the mixing of banking and commerce, such as advantages in accessing credit or using data to market or restrict access to products. This combination could have detrimental effects on competition and lead to market concentration in sectors of the real economy. Third, a stablecoin that becomes widely adopted as a means of payment could present concerns about anti-competitive effects, for example, if users of that stablecoin face undue frictions or costs in the event they choose to switch to other payment products or services. Concerns about anti-competitive effects are thus likely to be greater absent interoperability standards for stablecoins and stablecoin arrangements.

In addition to the potential for individual stablecoins to scale rapidly, the aggregate growth of stablecoins could also have important implications for the financial system and the macroeconomy. If insured depository institutions lose retail deposits to stablecoins, and the reserve assets that back stablecoins do not support credit creation, the aggregate growth of stablecoins could increase borrowing costs and impair credit availability in the real economy. The perception of the safety of insured depository institutions relative to stablecoins could also shift during times of stress, with large and sudden inflows or outflows of deposits possible.

Regulatory Gaps

Today, stablecoin arrangements are not subject to a consistent set of prudential regulatory standards that address the risks discussed above. Moreover, the number of different key parties that may be involved in an arrangement, and the operational complexity of these arrangements, pose challenges for supervisory oversight. For example, even if a given issuer of stablecoin is a bank, insight into the activities of key entities in the arrangement depends on the structure of the relationship and

²⁶ These risks may be exacerbated by a lack of adequate recovery and resolution planning. While the recovery and resolution implications for stablecoin arrangements may vary based on their structures, many would likely be subject to the provisions of Chapter 7 and/or 11 of the Bankruptcy Code. Several other resolution schemes could also be involved, and non-US and cross-border issues could also arise.

the nature of the services, if any, provided to the issuer bank as client.²⁷ To address these gaps, a consistent and comprehensive regulatory framework is needed both to increase transparency into key aspects of stablecoin arrangements and to ensure that stablecoins function in both normal times and in stressed market conditions.

III. Recommendations

As discussed above, stablecoins have multiple uses involving different types of participants and arrangements, which implicate a range of regulatory concerns. Stablecoins and stablecoin arrangements raise significant concerns from an investor protection and market integrity perspective. Stablecoin arrangements and digital asset trading activities may implicate the jurisdiction of the SEC and/or CFTC. Depending on the facts and circumstances, a stablecoin may constitute a security, commodity, and/or derivative implicating the jurisdiction of the SEC, and be subject to the U.S. federal securities laws, or implicating the jurisdiction of the CFTC, and be subject to the CEA. The federal securities laws and/or the CEA may apply to the stablecoin, the stablecoin arrangement, transactions in, and/or participants involved in, the stablecoin or stablecoin arrangement, and/or derivatives of any of the foregoing instruments. The SEC and CFTC have broad enforcement, rulemaking, and oversight authorities over transactions and participants falling within their respective jurisdictions to address the investor protection and market integrity risks discussed above. To the extent within the jurisdiction of the SEC or the CFTC, trading, lending, borrowing, and other activity involving stablecoins must be conducted in compliance with applicable provisions of the federal securities laws and the CEA, as well as applicable regulations (See *Digital Asset Trading Platforms and DeFi*).

Stablecoins also present important prudential concerns, as discussed in *Part II*. These prudential concerns relate to the potential for stablecoin runs, payment system risks, and the possibility that some stablecoins may rapidly scale. Because responsibilities within many of these arrangements are widely distributed, and currently fall within the jurisdiction of different regulatory agencies, or outside of the regulatory perimeter altogether, there is a risk of incomplete or fragmented oversight. Stablecoin arrangements have grown, and may continue to grow, rapidly. And as these arrangements grow, so may the risks associated with them. The recommendations presented below are focused on the prudential risks identified with respect to payment stablecoins.²⁸

²⁷ See 12 U.S.C. § 1867(c); see generally 12 U.S.C. §§ 1861-1867. Section 7 of the Bank Service Company Act (BSCA) provides the Federal Reserve, FDIC, and OCC with the authority to regulate and examine the performance of certain services by a third-party service provider for a depository institution “to the same extent as if such [banking-related] services were being performed by the depository institution itself on its own premises.” See also 12 U.S.C. § 1464(d)(7). In addition to the BSCA, the agencies have other authorities that support examination and oversight of services provided by third-party service providers. For example, the Home Owners’ Loan Act, reiterates this authority for services provided to savings associations. Other statutory authorities may also be relevant in specific situations. In the context of stablecoins, the ability to apply existing authority to regulate and examine stablecoin-related services provided by non-bank service providers might be dependent on the structure of the relationship and the nature of the services provided to the individual client banks.

²⁸ See *supra* note 2.

Legislation

To address prudential risks associated with the use of stablecoins as a means of payment, the agencies recommend that Congress act promptly to ensure that payment stablecoins are subject to appropriate federal prudential oversight on a consistent and comprehensive basis. Because payment stablecoins are an emerging and rapidly developing type of financial asset, legislation should provide regulators flexibility to respond to future developments and adequately address risks across a variety of organizational structures.

Legislation should address the risks outlined in this report by establishing an appropriate federal prudential framework for payment stablecoin arrangements.²⁹ In particular, with respect to stablecoin issuers, legislation should provide for supervision on a consolidated basis; prudential standards; and, potentially, access to appropriate components of the federal safety net. To accomplish these objectives, legislation should limit stablecoin issuance, and related activities of redemption and maintenance of reserve assets, to entities that are insured depository institutions. The legislation would prohibit other entities from issuing payment stablecoins. Legislation should also ensure that supervisors have authority to implement standards to promote interoperability among stablecoins.

Insured depository institutions include both state and federally chartered banks and savings associations, the deposits of which are covered, subject to legal limits, by deposit insurance, and which have access to emergency liquidity and Federal Reserve services.³⁰ Like other insured depository institutions, insured depository institutions that issue stablecoins would be subject to supervision and regulation at the depository institution level by a federal banking agency and consolidated supervision and regulation by the Federal Reserve at the holding company level.³¹ The standards to which these institutions are subject include capital and liquidity standards that are designed to address safety and soundness and, for the largest banking organizations, also include enhanced prudential standards that address financial stability concerns. Under the Federal Deposit Insurance Act, insured depository institutions also are subject to a special resolution regime that enables the orderly resolution of failed insured depository institutions by, among other mechanisms, protecting customers' insured deposits, and according priority to deposit claims over those of general creditors, and limits any potential negative systemic impacts in the event of bank failure.

As discussed above, apart from a stablecoin issuer, other key entities in the stablecoin arrangement may be critical to a stablecoin's ability to function as a means of payment and may help a stablecoin to scale (See **Part I, Activities and Participants in Stablecoin Arrangements**). As noted above, the core functions of a stablecoin arrangement – (1) creation of the stablecoin, (2) its transfer between parties, and (3) storage of the stablecoin by end users, as described in **Part I** (See **Part I, Creation of Stablecoins, and Transfer and Storage of Stablecoin**) – can be carried out by the activities of separate entities, within an arrangement that may be highly distributed and complex. Because the activities and functions in a stablecoin arrangement may be distributed across different parties, a prudential

²⁹ Given the global nature of stablecoins and other digital assets, legislation should apply to stablecoin issuers, custodial wallet providers, and other key entities that are domiciled in the United States, offer products that are accessible to U.S. persons, or that otherwise have a significant U.S. nexus.

³⁰ The term “insured depository institution” is defined in the Federal Deposit Insurance Act. See 12 U.S.C. § 1813(c)(2).

³¹ See 12 U.S.C. § 1841, *et seq.*

framework that is exclusively focused on stablecoin issuers is likely to leave certain payment system risks inadequately or inconsistently addressed.

Given the central role that custodial wallet providers play within a stablecoin arrangement, and the risks attendant to the relationship between custodial wallet providers and stablecoin users, Congress should require custodial wallet providers to be subject to appropriate federal oversight. Such oversight should include authority to restrict these service providers from lending customer stablecoins, and to require compliance with appropriate risk-management, liquidity, and capital requirements. In addition, to address concerns about concentration of economic power, Congress should consider other standards for custodial wallet providers, such as limits on affiliation with commercial entities or on use of users' transaction data.

In addition to stablecoin issuers and custodial wallet providers, other entities may perform activities that are critical to the functioning of the stablecoin arrangement (See *Part I, Activities and Participants in Stablecoin Arrangements*). To ensure that stablecoin arrangements are subject to a comprehensive regulatory framework, Congress should provide the federal supervisor of a stablecoin issuer with the authority to require any entity that performs activities critical to the functioning of the stablecoin arrangement to meet appropriate risk-management standards, such as the Principles for Financial Market Infrastructures³² as adapted to stablecoin arrangements.³³ Legislation should also provide appropriate agencies with examination and enforcement authority with respect to the stablecoin activities of these entities. Finally, supervisors should have the ability to adopt standards to promote interoperability among stablecoins, or between stablecoins and other payment instruments.

Taken together, legislation along these lines would address the prudential risks described in *Part II* of this report on a comprehensive and consistent basis:

- **User Protection and Run Risk:** Require stablecoin issuers to be insured depository institutions, which are subject to appropriate supervision and regulation, at the depository institution and the holding company level.
- **Payment System Risk:** Require custodial wallet providers to be subject to appropriate federal oversight. In addition, provide the supervisor of a stablecoin issuer with authority to require any entity that performs activities critical to the functioning of the stablecoin arrangement to meet appropriate risk-management standards.
- **Systemic Risk and Concentration of Economic Power:** Require stablecoin issuers to comply with activities restrictions that limit affiliation with commercial entities. Supervisors also should have the authority to implement standards to promote interoperability among stablecoins. Limits on custodial wallet providers' affiliation with commercial entities or on custodial wallet providers use of user transaction data may also help address these issues.

³² Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, *see supra* note 24.

³³ The authority to establish risk-management standards for entities that perform activities that are critical to the functioning of the stablecoin arrangement is in addition to, and does not affect, other existing regulatory or supervisory authorities that may apply to these entities.

Interim Measures

The agencies believe that legislation is urgently needed to comprehensively address the prudential risks posed by payment stablecoin arrangements. While Congress considers how to address risks associated with payment stablecoin arrangements, the agencies will continue to use their existing authorities to address these prudential risks to the extent possible. In the absence of Congressional action, the Council may consider steps available to it to address the risks outlined in this report.

A. Regulatory Agencies

Given the significant and growing risks posed by stablecoins, the agencies are committed to taking action to address risks falling within each agency's jurisdiction and to continued coordination and collaboration on issues of common interest across the federal financial agencies. For example, in evaluating a charter application, the banking agencies will seek to ensure that applicants address the risks outlined by this report, including risks associated with stablecoin issuance and other related services conducted by the banking organization or third-party service providers. In the context of those stablecoins that are securities, commodities, and/or derivatives, application of the federal securities laws and/or the CEA would provide important investor and market protections, as well as transparency benefits. Relevant authorities, including the Department of Justice, may consider whether or how section 21(a)(2) of the Glass-Steagall Act may apply to certain stablecoin arrangements.³⁴ In addition, the Consumer Financial Protection Bureau (CFPB) and consumer financial protection laws also provide a number of safeguards in the payments sector, including but not limited to the Electronic Fund Transfer Act, the Gramm-Leach-Bliley Act, and the Consumer Financial Protection Act.³⁵ Finally, a stablecoin arrangement may also offer "money transmission services," triggering federal AML/CFT obligations under the Bank Secrecy Act (BSA), supervised and enforced by the Financial Crimes Enforcement Network (FinCEN).

B. Council

In the absence of Congressional action, the agencies recommend that the Council consider steps available to it to address the risks outlined in this report. Such steps may include the designation of certain activities conducted within stablecoin arrangements as, or as likely to become, systemically important payment, clearing, and settlement (PCS) activities.³⁶ Designation would permit the appropriate agency to establish risk-management standards for financial institutions that engage in designated PCS activities, including requirements in relation to the assets backing the stablecoin, requirements related to the operation of the stablecoin arrangement, and other prudential standards.³⁷ Financial institutions that engage in designated PCS activities also would be subject to an examination and enforcement framework. Any designation would follow a transparent process.

³⁴ 12 U.S.C. § 378(a)(2).

³⁵ See, e.g., 15 U.S.C. § 1693 *et seq.*, Gramm-Leach-Bliley Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999); Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010).

³⁶ In addition, the Council potentially could address stablecoin arrangements using its authority to designate systemically important financial market utilities (FMUs), subjecting those arrangements to consolidated supervision. See 12 U.S.C. §§ 5462, 5463. The council also has authority to designate nonbank financial institutions as "systemically important financial institutions" (SIFIs), pursuant to its authority in Title I of the Dodd-Frank Act. See 12 U.S.C. § 5323. PCS activities may be designated to the extent that such activities do not involve the offer or sale of a security or any quotation, order entry, negotiation, or other pre-trade activity or execution activity.

³⁷ The financial stability risks of a stablecoin run would be greater in the context of stablecoins backed by potentially volatile and illiquid assets than in the context of stablecoins backed one-for-one by high quality liquid assets, see *supra* note 23.

Illicit Finance Risk

As with all digital assets, stablecoins can present money laundering and terrorist financing (ML/TF) risks. The magnitude of these risks depends on various factors, including the application of anti-money laundering and countering the financing of terrorism (AML/CFT) controls, the degree to which it is adopted by the public, and the design of the stablecoin arrangement. To further prevent misuse of stablecoins and other digital assets by illicit actors, Treasury will continue leading efforts at the FATF to encourage countries to implement international AML/CFT standards and pursue additional resources to support supervision of domestic AML/CFT regulations. Treasury will also continue to assess the illicit financing risks to the United States associated with stablecoins and other digital assets, including through the forthcoming National Risk Assessments on Money Laundering, Terrorist Financing, and Proliferation Financing, and Illicit Finance Strategy.

A critical factor for illicit finance risk mitigation, regardless of the features of a stablecoin's design, is that international standards for the regulation and supervision of service providers associated with stablecoins and other digital assets are effectively implemented worldwide. Stablecoins and other digital assets can be used to transfer large amounts of value across borders very quickly. A rapid increase in cross-border payments could amplify ML/TF risks due to the uneven implementation of global international AML/CFT standards developed by the FATF.³⁸ While the United States regulates and enforces AML/CFT obligations for covered service providers, most countries have either not put these standards into their regulatory frameworks or are failing to supervise them, leading to gaps in AML/CFT regulation and supervision for stablecoins and other digital assets. Illicit actors can exploit these gaps by using services in countries with weak regulatory and supervisory regimes to launder funds, store proceeds of crime, or evade sanctions in stablecoins or other digital assets.

The promise of a stable value can, particularly when paired with the reach of commercial firms such as telecommunications or technology providers, increase the potential that stablecoins scale rapidly. Criminals often use the most common and liquid forms of value for ML and TF, and mass-adopted stablecoins or other digital assets may be attractive to illicit actors, which could heighten ML/TF risks. Conversely, mass adoption of a well-regulated and supervised stablecoin with strong AML/CFT protections built into the stablecoin could provide greater transparency into illicit financial activity and could mitigate ML/TF risks, especially if the stablecoin takes market share away from riskier alternatives.

Like other digital assets, stablecoins may be used to transact pseudonymously, depending on the underlying architecture.³⁹ However, in certain instances, stablecoin addresses and transactions on public blockchains can be paired with information, if available, that can enable regulators and law enforcement to identify address owners.⁴⁰ Users of some stablecoins can transact without

³⁸ The FATF in June 2019 revised its standards to cover virtual assets, including stablecoins, and service providers.

³⁹ The majority of the stablecoin market currently operates on public blockchains where transactions may be pseudonymous, meaning the identity of the sender or the receiver of a transaction is unknown, but other transactional information is available (e.g., the amount, the time, the value, etc.).

⁴⁰ While stablecoins, like other digital assets, can be used with mixers or tumblers, which de-link the transaction trail and make it difficult to determine the address, sender identity, or original sum involved in the transaction, the use of these tools with stablecoins is uncommon.

the involvement of financial institutions subject to AML/CFT obligations, thus limiting collection of and access to investigative information and preventative measures used to identify illicit financial activity.

To encourage international implementation of AML/CFT standards, Treasury will continue to engage with the FATF to encourage countries to effectively implement the FATF standards for virtual assets. On October 28, 2021, the FATF published updated guidance on the implementation of the FATF standards for virtual assets and virtual asset service providers, which describes how the standards apply to digital assets and help countries and the private sector better understand how to effectively implement standards. As a result of the publication of the FATF standards, the FATF will now redouble its efforts on effective implementation of the standards on digital assets by member countries, and the United States will continue to support these efforts at the FATF and engage bilaterally to encourage countries to meet these standards.

In the United States, most stablecoins are considered “convertible virtual currency” (CVC) and treated as “value that substitutes for currency” under FinCEN’s regulations.⁴¹ All CVC financial service providers engaged in money transmission, which can include stablecoin administrators and other participants in stablecoin arrangements, must register as money services businesses (MSBs) with FinCEN. As such, they must comply with FinCEN’s regulations, issued pursuant to authority under the BSA, which require that MSBs maintain AML programs, report cash transactions of \$10,000 or more, file suspicious activity reports (SARs) on certain suspected illegal activity, and comply with various other obligations.⁴² Current BSA regulations require the transfer of certain specific information well beyond what can be inferred from the blockchain resulting in non-compliance. While the Office of Foreign Assets Control (OFAC) has provided guidance on how the virtual currency industry can build a risk-based sanctions compliance program that includes internal controls like transaction screening and know your customer procedures, there may be some instances where U.S. sanctions compliance requirements (i.e., rejecting transactions) could be difficult to comply with under blockchain protocols.

While regulations are broadly sufficient to cover stablecoin administrators and other participants in stablecoin arrangements, Treasury will pursue additional resources, which could enable FinCEN, the Internal Revenue Service (IRS), and federal functional regulators to increase supervision of these regulations. This could result in better private sector compliance and, where it does not, could lead to enforcement actions for non-compliance. Enforcement activity would signal to stablecoin administrators and other financial institutions in the stablecoin industry that they will be held accountable for failing to meet AML/CFT and sanctions obligations, will incentivize compliance, and may enhance pressure on some foreign jurisdictions to follow suit. To that end, FinCEN’s delegated examiners, the IRS, have been conducting compliance examinations on CVC administrators and

41 See 31 C.F.R. § 1010.100(ff)(5)(i)(A) (definition of “money transmitter” includes a person who accepts and transmits, *inter alia*, “value that substitutes for currency”). See also Joint Statement by Heath Tarbert, Kenneth Blanco, and Jay Clayton on Activities Involving Digital Assets, October 11, 2019, https://www.fincen.gov/sites/default/files/2019-10/CVC%20Joint%20Policy%20Statement_508%20FINAL_0.pdf

42 See generally 31 C.F.R. § 1022. FinCEN uses the term MSB to refer to several categories of business models to which FinCEN’s regulations apply. One type of MSB is money transmitters, the category into which most exchanges, administrators, and other persons engaged in activity involving CVC—other than traditional institutions such as banks and broker dealers—fall.

exchangers, including administrators of stablecoin arrangements and the exchanges on which they are offered, since 2014. These examinations have also included foreign-located MSBs doing business in the United States in whole or substantial part.⁴³

FinCEN has taken decisive action when it identifies financial institutions that fail to comply with these obligations. For example, in 2017 FinCEN assessed a \$110 million civil money penalty against the foreign-located CVC exchanger BTC-e for failure to comply with the BSA's registration, AML program, reporting, and recordkeeping requirements.⁴⁴ More recently, FinCEN assessed a \$100 million civil money penalty against the foreign-located, non-compliant futures commission merchant BitMEX for failing to maintain an AML Program and a Customer Identification Program, and failure to file SARs.⁴⁵ That penalty was concurrent with the CFTC's \$100 million civil money penalty.⁴⁶

Treasury in January will report to Congress the National Money Laundering and Terrorist Financing Risk Assessments, which assess the illicit financing risk landscape for digital assets, among other financial products and activities. The Risk Assessments are developed with input from U.S. government stakeholders, including law enforcement, the federal functional regulators, and the intelligence community, and use public or adjudicated case studies to demonstrate how illicit actors are misusing financial assets. The Risk Assessments inform the Illicit Finance Strategy, which is designed to identify goals, objectives, and priorities for disrupting and preventing illicit finance activities within and transiting the U.S. financial system.

43 31 C.F.R. § 1010.100(ff).

44 Assessment of Civil Money Penalty, FINANCIAL CRIMES ENFORCEMENT NETWORK, No. 2017-03, July 27, 2017, https://www.fincen.gov/sites/default/files/enforcement_action/2020-05-21/Assessment%20for%20BTCeVinnik%20FINAL2.pdf

45 Assessment of Civil Money Penalty, FINANCIAL CRIMES ENFORCEMENT NETWORK, No. 2021-02, August 10, 2021, https://www.fincen.gov/sites/default/files/enforcement_action/2021-08-10/Assessment_BITMEX_508_FINAL.pdf

46 *Commodity Futures Trading Commission v. HDR Global Trading Limited, et.al.*, 1:20-cv-08132, (S.D. NY, Aug. 10, 2021).

International Standards

This report considers and builds on the work of international forums, including work that has led to recommendations, standards, principles, and guidance that may apply to stablecoin arrangements. The Financial Stability Board in October 2020 set out ten high-level recommendations that seek to promote coordinated and effective regulation, supervision, and oversight of Global Stablecoin (GSC) arrangements to address the financial stability risks posed by GSCs, both at the domestic and international level, while supporting responsible innovation and providing sufficient flexibility for jurisdictions to implement domestic approaches.

International standard-setting bodies are also pursuing work to examine the application of international standards, principles, and guidance to stablecoin arrangements. For example, the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) published a consultative report on the application of the PFMI to stablecoin arrangements. With respect to illicit finance, the FATF in June 2019 revised its standards to cover digital assets, including stablecoins and service providers, and is working on updated guidance for how to implement these standards.

The agencies are committed to continuing engagement at the FSB and the standard-setting bodies to ensure comprehensive oversight of stablecoin arrangements, further common regulatory outcomes across jurisdictions, and reduce opportunities for regulatory arbitrage.

Annex: List of Outreach Participants

To inform the work for this report, the staff of the agencies held discussions with the stakeholders listed below. While the staff considered input received, the agencies do not endorse any particular project, viewpoint, product, or service.

Market Participants

Anchorage Digital	Gemini
BlockFi	Kraken
Circle	Mastercard
Coinbase	Paxos
Cumberland DRW LLC	Square
Diem Association	Stripe
FIS	Tether
Fiserv	Visa
Fnality International	

Trade Associations

Bank Policy Institute	Independent Community Bankers of America
Blockchain Association	National Association of Federally-Insured Credit Unions
Electronic Transactions Association	

Experts and Advocates

AFL-CIO	Gary Gorton, Yale School of Management
AID-Tech	Howell E. Jackson, Harvard Law School
Americans for Financial Reform	Markus Brunnermeier, Princeton University
Better Markets	Morgan Ricks, Vanderbilt University Law School
Center for Responsible Lending	National Community Reinvestment Coalition
Coin Center	National Consumer Law Center
Dan Awrey, Cornell Law School	Open Markets Institute
Darrell Duffie, Stanford University Graduate School of Business	Raúl Carrillo, Yale Law School
FinRegLab	Stellar Development Foundation

